Turk J Gastroenterol *2014; 25: 461-2*

Dissolution of gastric bezoars using cola

To the Editor,

With great interest, we read the recent article by İşlek et al. (1) "A rare outcome of iron deficiency and pica: Rapunzel syndrome in a 5-year-old child". The authors discussed a girl who was referred with an abdominal mass and anemia, diagnosed with Rapunzel syndrome. She had no medical history that supported the presence of trichophagy or any psychiatric or neurological disorders. They mentioned that there was the possibility of the existence of a bezoar in children who have anemia and abdominal mass but no neuropsychiatric disorder. We want to mention that gastric bezoars can be treated occasionally with some adjuvant solutions that have the advantage of being noninvasive and inexpensive.

A bezoar is defined as a foreign body resulting from accumulation of ingested material, most commonly found as a hard mass or concretion in the gastrointestinal tract. Trichobezoars are composed of hair, which are seen mostly in young women with psychiatric and neurological disorders. Extension of hairs beyond the stomach into the small bowel in the form of a tail has been named Rapunzel syndrome (2).

For the treatment of bezoars, a variety of dissolution therapies and endoscopic fragmentation techniques have been evaluated as conservative treatment. Previous studies showed that cola alone is effective in gastric phytobezoar dissolution in half of the cases and, combined with additional endoscopic methods, is successful in more than 90% of them (3). It can be used via gastric lavage or oral consumption 3000 mL over a 12-hour period. (4,5). Its effect may be related to its low pH, high sodium bicarbonate content, and the CO_2 bubbles, which increase dissolution. Cola has the advantage of being widely available, inexpensive, and well tolerated and is easy to administer.

For patients that are resistant to chemical dissolution and endoscopic therapy or with severe symptoms due to large bezoars, surgery is recommended.

We hope that the items mentioned above add to the value of the well-written article of İşlek (1) regarding Rapunzel syndrome.

Conflict of Interest: No conflict of interest was declared by the authors.

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REFERENCES

1. İşlek A, Sayar E, Yılmaz A, Boneval C, Artan R. A rare outcome of iron deficiency and pica: Rapunzel syndrome in a 5-year-old child. Turk J Gastroenterol 2014; 25: 100-2. **[CrossRef]**
2. Vaughn ED Jr, Sawyers JL, Scott HW Jr. The Rapunzel syndrome: an unusual complication of intestinal bezoar. Surgery 1968; 63: 339-43.
3. Ladas SD, Kamberoglou D, Karamanolis G, Vlachogiannakos J, Zouboulis-Vafiadis. Systematic review: Coca-Cola can effectively dissolve gastric phytobezoars as a first-line treatment. Aliment Pharmacol Ther 2013; 37: 169-73. **[CrossRef]**
4. Ladas SD, Triantafyllou K, Tzathas C, Tassios P, Rokkas T, Raptis SA. Gastric phytobezoars may be treated by nasogastric Coca-Cola lavage. Eur J Gastroenterol Hepatol 2002; 14: 801. **[CrossRef]**
5. Lee BJ, Park JJ, Chun HJ, et al. How good is cola for dissolution of gastric phytobezoars? World J Gastroenterol 2009; 15: 2265. **[CrossRef]**

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Received: 12.7.2014 **Accepted:** 16.7.2014

Available online at www.turkjgastroenterol.org • DOI: 10.5152/tjg.2014.8057

Author's Reply

To the Editor,

We would like to thank authors for their letter concerning our manuscript, which has published in the The

Although this comment was sent to the authors of the original manuscript, no response is received.

Turkish Journal of Gastroenterology (1). Authors have mentioned that gastric bezoars can be threatened occasionally with some adjuvant solutions like cola.

Non-surgical treatment options like dissolution therapy have mentioned in the literature (2). Dissolutaion therapies are effective in gastric phytobezoars and some pharmacobezoars, not trichobezoars and intestinal bezoars as in the Rapunzel Syndrome. In phytobezoars after the treatment often partial dissolution is achieved and subsequent endoscopic removel is required. During endoscopic treatment post-pyloric tail (if any) can migrate to the jejunum. This may result an intestinal obstruction. And also endoscopic removal should not be tried in Rapunzel Syndrome as the tail reaches into the jejunum and the treatment carries the risk of breaking in mass, which can not be removed completely via endoscope and it may result intestinal obstruction. Furthermore the solutions with low pH can deteriorate compression ulcers which is occured by the mass (our patient has got compression ulcers) (3). Literature emphasises that some fragmantation methods can be applied in gastric trichobezoar (4). In our patient endoscopic examination showed a big trichobezoar filling almost all of the stomach with a tail extending to the jejunum and gastric ulcer. As the dissolution therapy could have been resulted with aspiration or gastric perforation due to compression ulcer, surgical removel was done.

Thanks to the authors for their contributions of an important treatment modality especially in gastric phytobezoars and pharmacobezoars.

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REFERENCES

1. Islek A, Sayar E, Yılmaz A, Boneval C, Artan R. A rare outcome of iron deficiency and pica: Rapunzel syndrome in a 5-year-old child iron deficiency and pica. Turk J Gastroenterol 2014; 25: 100-2. **[CrossRef]**
2. Park SE, Ahn JY, Jung HY, et al. Clinical outcomes associated with treatment modalities for gastrointestinal bezoars. Gut Liver 2014; 8: 400-7. **[CrossRef]**
3. Ladas SD, Kamberoglou D, Karamanolis G, Vlachogiannakos J, Zouboulis-Vafiadis I. Systematic review: Coca-Cola can effectively dissolve gastric phytobezoars as a first-line treatment. Aliment Pharmacol Ther 2013; 37: 169-73. **[CrossRef]**
4. Gorter RR, Kneepkens CM, Mattens EC, Aronson DC, Heij HA. Management of trichobezoar: Case report and literature review. Pediatr Surg Int 2010; 26: 457-63. **[CrossRef]**

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